

the drying step (b);

(b) drying the aqueous system; and

(c) solidifying the components (i), (ii) and (iii) as an amorphous glass without crystals therein, whereby the amorphous glass stabilizes the compound or mixture of compounds therein and prevents damage thereto during drying.

22. (New) The method of claim 21, wherein the aqueous system contains from 0.05 to 90% by weight of sugar alcohol.

23. (New) The method of claim 21, wherein the ratio of the sugar alcohol plus the additive to the compound is at least 0.25:1 by weight.

24. (New) The method of claim 23, wherein the ratio of the sugar alcohol plus the additive to the compound is at least 0.5:1 by weight.

25. (New) The method of claim 21, wherein the compound is a protein, polysaccharide or nucleic acid.

26. (New) The method of claim 21, wherein the compound is an enzyme, serum, a serum complement, an antibody or antigen (either free or coupled to a support) a nucleic acid, a fluorescent protein, or a vaccine component.

27. (New) The method of claim 21, wherein the aqueous system is dried under conditions selected from one or more of the group consisting of ambient temperature or above, chill drying, freeze drying, spray drying, vacuum drying and drying at atmospheric pressure.

28. (New) The method of claim 21, wherein the sugar alcohol is selected from the group consisting of mannitol, galactitol, xylitol, arabinitol and inositol.

29. (New) The method of claim 21, wherein the additive is selected from the group consisting of peptide, protein, borate ion, calcium lactate, phosphate, silicate and acetate salts.

30. (New) The method of claim 21, wherein the additive is selected from the group consisting of boric acid, tetraborate salt of sodium or potassium and sodium mannitoborate.

31. (New) The method of claim 21, wherein the amorphous glass is formed from a mixture of two or more monosaccharide sugar alcohols.

32. (New) The method of claim 21, wherein the additive is a protein or a denatured protein.

33. (New) The method of claim 21, wherein the amorphous glass is formed from a formulation including mannitol.

34. (New) The method of claim 33, wherein the formulation further includes borate ion as an additive.

35. (New) The method of claim 33, wherein the formulation further includes calcium lactate as an additive.

36. (New) The composition of claim 21, wherein the amorphous glass comprises:

mannitol 33.3%, inositol 33.3% and PVP 33.3%;

mannitol 31.6%, inositol 31.6%, xylitol 5% and calcium lactate 31.6%;

mannitol 33.3%, inositol 33.3% and calcium lactate 33.3%;

mannitol 33.3%, inositol 33.3% and Byco C 33.3%;

mannitol 23.3%, inositol 23.3%, calcium lactate 30% and PVP 23.3%;

mannitol 33.3%, arabinitol 33.3% and calcium lactate 33.3%;

mannitol 30%, inositol 15%, galactitol 15% and Byco C 40%;

mannitol 30%, inositol 15%, galactitol 15% and calcium lactate 40%;

mannitol 33%, Byco C 33% and calcium lactate 33%;

mannitol 50%, and Kollidon 30 (polyvinylpyrrolidone (PVP)) 50%;

mannitol 33%, Kollidon 30 (polyvinylpyrrolidone (PVP)) 33% and calcium lactate 33%;

mannitol 50%, and Dextran 50%; or  
mannitol 33%, Dextran 33% and calcium lactate 33%.

37. (New) The method of claim 21, wherein the activity is about 90% or more.

38. (New) The method of claim 37, wherein the activity is about 100%.

39. (New) The method of claim 21, wherein the period of time is about one day or more.

40. (New) The method of claim 39, wherein the period of time is about 4 days or more.

41. (New) The method of claim 40, wherein the period of time is about 7 days or more.

42. (New) The method of claim 41, wherein the period of time is about 35 days or more.

43. (New) The method of claim 42, wherein the period of time is about 42 days or more.

44. (New) The method of claim 43, wherein the period of time is about 90 days or more.

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45. (New) A composition comprising an amorphous sugar glass without crystals therein containing at least one monosaccharide sugar alcohol and at least one additive which is a glass-former or a glass-formation-facilitator and at least one compound having an activity that is about 80% or more of its original activity after a period of storage at about 37 °C to about 70 °C in a weight ratio of the monosaccharide sugar alcohol plus the additive to the compound of at least 0.25:1.

46. The composition of claim 45, wherein the ratio of the sugar alcohol plus the additive to the compound is at least 0.5:1 by weight.

47. The composition of claim 45, wherein the compound is a protein, polysaccharide or nucleic acid.

48. The composition of claim 45, wherein the compound is an enzyme, serum, a serum complement, an antibody or antigen (either free or coupled to a support) a nucleic acid, a fluorescent protein, or a vaccine component.

49. The composition of claim 45, wherein the aqueous system is dried under conditions selected from one or more of the group consisting of ambient temperature or above, chill drying, freeze drying, spray drying, vacuum drying and drying at atmospheric pressure.

50. The composition of claim 45, wherein the sugar alcohol is selected from the group consisting of mannitol, galactitol, xylitol, arabinitol and inositol.

51. The composition of claim 45, wherein the additive is selected from the group consisting of peptide, protein, borate ion, calcium lactate, phosphate, silicate and acetate salts.

52. The composition of claim 45, wherein the additive is selected from the group consisting of boric acid, tetraborate salt of sodium or potassium and sodium mannitoborate.

53. The composition of claim 45, wherein the amorphous glass is formed from a mixture of two or more monosaccharide sugar alcohols.

54. The composition of claim 45, wherein the additive is a protein or a denatured protein.

55. The composition of claim 45, wherein the amorphous glass is formed from a formulation including mannitol.

56. The composition of claim 55, wherein the formulation further includes borate ion as an additive.

57. The composition of claim 55, wherein the formulation further includes calcium lactate as an additive.

58. The composition of claim 45, wherein the amorphous glass comprises:  
mannitol 33.3%, inositol 33.3% and PVP 33.3%;  
mannitol 31.6%, inositol 31.6%, xylitol 5% and calcium lactate 31.6%;  
mannitol 33.3%, inositol 33.3% and calcium lactate 33.3%;  
mannitol 33.3%, inositol 33.3% and Byco C 33.3%;  
mannitol 23.3%, inositol 23.3%, calcium lactate 30% and PVP 23.3%;  
mannitol 33.3%, arabinitol 33.3% and calcium lactate 33.3%;  
mannitol 30%, inositol 15%, galactitol 15% and Byco C 40%;  
mannitol 30%, inositol 15%, galactitol 15% and calcium lactate 40%;  
mannitol 33%, Byco C 33% and calcium lactate 33%;  
mannitol 50%, and Kollidon 30 (polyvinylpyrrolidone (PVP)) 50%;  
mannitol 33%, Kollidon 30 (polyvinylpyrrolidone (PVP)) 33% and calcium lactate 33%;  
mannitol 50%, and Dextran 50%; or  
mannitol 33%, Dextran 33% and calcium lactate 33%.

59. (New) The composition of claim 45, wherein the activity is about 90% or more.

60. (New) The composition of claim 59, wherein the activity is about 100%.

61. (New) The composition of claim 60, wherein the period of time is about one day or more.

62. (New) The composition of claim 61, wherein the period of time is about 4 days or more.

63. (New) The composition of claim 62, wherein the period of time is about 7 days or more.

64. (New) The composition of claim 63, wherein the period of time is about 35 days or more.

65. (New) The composition of claim 64, wherein the period of time is about 42 days or more.

66. (New) The composition of claim 65, wherein the period of time is about 90 days or more.

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